

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/607,909 Confirmation No.: 8101  
Applicant: Sommadossi *et al.*  
Filed: June 27, 2003  
TC/A.AU.: 1646  
Examiner: Unassigned  
  
Docket No.: 06171.105088 IDX 1031  
Customer No.: 20786  
Title: 2'-C-Methyl- 3'-O-L-Valine Ester Ribofuranosyl Cytidine for Treatment of  
Flaviviridae Infections

Commissioner for Patents  
P. O. Box 1450  
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Respectfully submitted,

Sherry M. Knowles  
Reg. No. 33,052

King & Spalding, LLP  
191 Peachtree Street, N.E., Atlanta, GA 30303  
Office: (404)572-4600/ Fax: 404-572-5145

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				Application Number	10/607,909
				Filing Date	June 27, 2003
				First Named Inventor	Sommadossi <i>et al.</i>
				Group Art Unit	1646
				Examiner Name	Unassigned
Sheet	1	of	7	Attorney Docket Number	06171.105088 IDX 1031

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U.S. PATENT DOCUMENTS							
Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear	T <sup>6</sup>
		Number	Kind Code (if known)				
	AA	3,798,209		Wilkowski, <i>et al.</i>	03-19-1974		
	AB	RE29,835		Witkowski <i>et al.</i>	11-14-1978		
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	AQ	DE	3,512,781	A1	Soc. Nat. Elf Aquitaine	10-17-1985		
	AR	EP	0,180,276	B1	Stamicarbon B.V.	12-19-1988		
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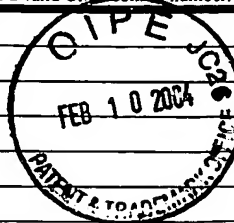
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	BG	WO	99/43691	A1	Emory; U. Georgia Res. Found.	09-02-1999		
	BH	WO	99/45016	A2	Metabasis Therapeutics Inc.	09-10-1999		
	BI	WO	99/59621	A1	Schering Corporation	11-25-1999		
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	BT	WO	01/90121	A2&3	Novirio (Idenix); Univ. ... Cagliari	11-29-2000		
	BU	WO	01/92282	A2&3	Novirio (Idenix); Univ. ... Cagliari	06-12-2001		
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	BAC	WO	03/024461	A1	Schering Corporation	03-27-2003		

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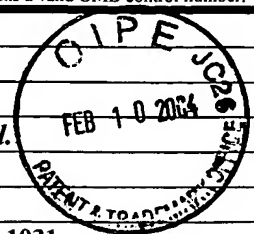
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	3	of	7	Attorney Docket Number	06171.105088 IDX 1031



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		Office <sup>3</sup>	Number	Kind Code <sup>2</sup> (if known)				
	CA	WO	04/003138	A2	Merck & Co., Isis Pharmaceutical	01-08-2004		
	CB	WO	04/007512	A2	Merck & Co., Isis Pharmaceutical	01-22-2004		
	CC	WO	04/009020	A2	Merck & Co., Isis Pharmaceutical	01-29-2004		

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Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
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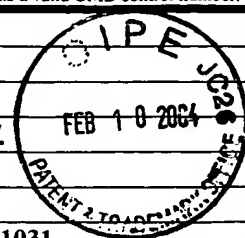
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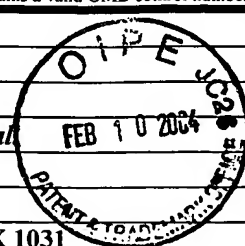
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	EE	KHAMNEI, S., "Neighboring group catalysis in the design of nucleotide prodrugs," <i>J. Med. Chem.</i> , 39:4109-4115 (1996).	
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	EL	LEWIS, W., <i>et al.</i> , "Fialuridine and its metabolites inhibit DNA polymerase $\gamma$ at sites of multiple adjacent analog incorporation, decrease mtDNA abundance, and cause mitochondrial structural defects in cultured hepatoblasts," <i>Proceedings of the National Academy of Sciences, USA</i> , 93(8): 3592-7 (1996).	
	EM	LOHMANN V., <i>et al.</i> , "Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of the Hepatitis C virus," <i>Virology</i> , 249, 108-118 (1998).	
	EN	LUH, T.-Y., <i>et al.</i> , "A convenient method for the selective esterification of amino-alcohols," <i>Synthetic Communications</i> , 8(5):327-333 (1978).	

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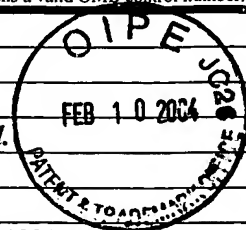
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				Filing Date	June 27, 2003
				First Named Inventor	Sommadossi et al.
				Group Art Unit	1646
				Examiner Name	Unassigned
6 of 7				Attorney Docket Number	06171.105088 IDX 1031



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	FA	MCCORMICK, J., et al., "Structure and total synthesis of HF-7, a neuroactive glyconucleoside disulfate from the funnel-web spider <i>Hololena curta</i> ," <i>J. Am. Chem. Soc.</i> , 121(24), 5661-5664 (1999).	
	FB	MCKENZIE, R., et al., "Hepatic failure and lactic acidosis due to fialuridine (FIAU), an investigational nucleoside analogue for chronic hepatitis B," <i>N. Engl. J. Med.</i> , 333(17):1099-1105 (1995).	
	FC	MEIER, C., et al., "Cyclic saligenyl phosphotriesters of 2',3'-dideoxy-2',3'-didehydrothymidine (d4T) – A new pro-nucleic approach," <i>Bioorganic &amp; Med. Chem. Letters</i> 7(2):99-104 (1997).	
	FD	MEDINA, D. J., et al., "Comparison of mitochondrial morphology, mitochondrial DNA content, and cell viability in cultured cells treated with three anti-Human Immunodeficiency Virus dideoxynucleosides," <i>Antimicrob. Agents Chemother.</i> , 38(8):1824-8 (1994).	
	FE	MEYER, R.B., Jr., et al., "2'-O-Acyl-6-thioinosine cyclic 3',5'-phosphates as prodrugs of thioinosinic acid," <i>J. Med. Chem.</i> 22: 811-815 (1979).	
	FF	NEIDLEIN, R., et al., "Mild preparation of 1-benzyluloxyminoalkylphosphonic dichlorides: Application to the synthesis of cyclic phosphonic diesters and cyclic monoester amides," <i>Heterocycles</i> 35:1185-1203 (1993).	
	FG	NUTT, R.F., et al., "Branched-chain sugar nucleosides. III. 3'-C-methyladenine," <i>J. Org. Chem.</i> , 33:1789-1795 (1968).	
	FH	OLSEN, et al. (Oral Session V, Hepatitis C Virus, Flaviviridae; 16 <sup>th</sup> International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.) p A76).	
	FI	PAN-ZHOU, X-R, et al., "Differential effects of antiretroviral nucleoside analogs on mitochondrial function in HepG2 cells," <i>Antimicrob. Agents Chemother.</i> 44:496-503 (2000).	
	FJ	PIANTADOSI, C., et al., "Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity," <i>J. Med. Chem.</i> 34:1408-1414 (1991).	
	FK	RICHMAN, D.D., et al., "The toxicity of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-Related Complex," <i>N. Engl. J. Med.</i> , 317(4):192-197 (1987).	
	FL	SOMMADOSSI J-P, et al., "Comparison of cytotoxicity of the (-)- and (+)- enantiomer of 2',3'-dideoxy-3'-thiacytidine in normal human bone marrow progenitor cells," <i>Biochemical Pharmacology</i> 44(10):1921-1925 (1992).	
	FM	SOMMADOSSI J.-P., et al., "Toxicity of 3'-azido-3'-deoxythymidine and 9-(1,3-dihydroxy-2-propoxymethyl)guanine for normal human hematopoietic progenitor cells in vitro," <i>Antimicrobial Agents and Chemotherapy</i> , 31:452-454 (1987).	
	FN	STARRETT, J.E.Jr., et al., "Synthesis, oral bioavailability determination, and in vitro evaluation of prodrugs of the antiviral agents 9-(2-(phosphonomethoxy)ethyl]adenine (PMEA)," <i>J. Med. Chem.</i> 37: 1857-1864 (1994).	

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	GA	WEINBERG, R.S., <i>et al.</i> , "Effect of antiviral drugs and hematopoietic growth factors on <i>in vitro</i> erythropoiesis," <i>Mt. Sinai J. Med.</i> 1998;65(1):5-13.	
	GB	YARCHOAN, R., <i>et al.</i> "Long-term toxicity / activity profile of 2',3'-dideoxyinosine in AIDS or AIDS-related complex," <i>The Lancet</i> , 336(8714):526-529 (1990).	
	GC	YOSHIDA Y, <i>et al.</i> , "Reversal of azidothymidine-induced bone marrow suppression by 2',3'-dideoxythymidine as studied by hemopoietic clonal culture," <i>AIDS Res. Hum. Retroviruses</i> , 6(7):929-932 (1990).	
	GD	ZON, G., "Cyclophosphamide Analogues," Chapter 4 in <i>Progress in Medicinal Chemistry</i> , Vol. 19, G.P. Ellis and G.B. West, Eds., pp. 205-246 (1982).	

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